

CLAIMS

1. A method of transforming a digital signal for it to be transmitted, the signal being decomposed into several regions each containing digital data, the signal comprising header data specific to each region and which comprise at least one part representing the amplitude of the data of the region considered, wherein the method comprises a step of modifying among the header data specific to at least one region of the signal, the part of the header data representing the amplitude of the data of the region considered.
2. A method according to claim 1, wherein the digital data of the signal being digital samples representing physical quantities, the part of the header data representing the amplitude of the samples of the region considered provides a number of bitplanes according to which the amplitudes of the samples are encoded based on the difference between, on the one hand, a number of so-called reference bitplanes, depending on the signal and which is deduced from information present in the signal and, on the other hand, a number of zero bitplanes which is contained in said part of the header data.
3. A method according to claim 2, wherein the modification step provides for modifying the number of zero bitplanes.
4. A method according to claim 3, wherein the modification step provides for increasing the number of zero bitplanes.
5. A method according to claim 1, wherein the modification step makes use of at least one transformation key K_u .
6. A method according to claim 5, wherein the transformation key K_u depends on said at least one region considered.
7. A method according to claim 5, wherein the modification step involves in particular the generation of a pseudo-random sequence based on the transformation key K_u .
8. A method according to claim 5, wherein it comprises a step of transmitting the transformation key K_u .
9. A method according to claim 1, wherein it comprises a step of transmitting the signal so transformed.

10. A method of transforming a digital signal decomposed into a plurality of regions each containing digital data, the signal comprising header data specific to each region and which comprise at least one part representing the amplitude of the data of the region considered, wherein the method comprises the following steps:

5 - receiving the signal of which the part of the header data representing the amplitude of the data of at least one region has undergone a modification before transmission of said signal,

 - modifying in reverse that modified part of the header data in order to restore said unmodified part of the header data of the signal.

10 11. A method according to claim 10, wherein the digital data of the signal being digital samples representing physical quantities, the part of the header data representing the amplitude of the samples of the region considered provides a modified number of bitplanes according to which the amplitudes of the samples are encoded based on the difference between, on the one hand, a number of so-called
15 reference bitplanes, depending on the signal and which is deduced from information present in the signal and, on the other hand, a modified number of zero bitplanes which is contained in said part of the header data.

 12. A method according to claim 11, wherein the step of reverse modification provides for modifying the modified number of zero bitplanes.

20 13. A method according to claim 12, wherein the step of reverse modification provides for reducing the modified number of zero bitplanes.

 14. A method according to claim 10, wherein the step of reverse modification makes use of at least one transformation key K_u .

25 15. A method according to claim 14, wherein the transformation key K_u depends on said at least one region considered.

 16. A method according to claim 14, wherein the step of reverse modification involves in particular the generation of a pseudo-random sequence based on the transformation key K_u .

30 17. A method according to claim 14, wherein it comprises a prior step of receiving the transformation key K_u .

 18. A device for transforming a digital signal for it to be transmitted, the signal being decomposed into several regions each containing digital data, the signal comprising header data specific to each region and which comprise at least one part

representing the amplitude of the data of the region considered, wherein the device comprises means for modifying, among the header data specific to at least one region of the signal, the part of the header data representing the amplitude of the data of the region considered.

5 19. A device according to claim 18, wherein the digital data of the signal being digital samples representing physical quantities, the part of the header data representing the amplitude of the samples of the region considered provides a number of bitplanes according to which the amplitudes of the samples are encoded based on the difference between, on the one hand, a number of so-called reference
10 bitplanes, depending on the signal and which is deduced from information present in the signal and, on the other hand, a number of zero bitplanes which is contained in said part of the header data.

20. A device according to claim 19, wherein the modification means modify the number of zero bitplanes.

15 21. A device according to claim 20, wherein the modification means increase the number of zero bitplanes.

22. A device according to claim 18, wherein the modification means make use of at least one transformation key K_u .

20 23. A device according to claim 22, wherein the transformation key K_u depends on said at least one region considered.

24. A device according to claim 20, wherein it comprises means for generating a pseudo-random sequence based on the transformation key K_u .

25. A device according to claim 22, wherein it comprises means for transmitting the transformation key K_u .

25 26. A device according to claim 18, wherein it comprises means for transmitting the signal so transformed.

27. A device for transforming a digital signal decomposed into a plurality of regions each containing digital data, the signal comprising header data specific to each region and which comprise at least one part representing the amplitude of the
30 data of the region considered, wherein the device comprises:

- means for receiving the signal of which the part of the header data representing the amplitude of the data of at least one region has undergone a modification before transmission of said signal,

- means for reverse modification of that modified part of the header data in order to restore said unmodified part of the header data of the signal.

28. A communication apparatus, wherein it comprises a device for transforming a digital signal according to claim 18.

5 29. A communication apparatus, wherein it comprises a device for transforming a digital signal according to claim 27.

30. An information storage means which can be read by a computer or a microprocessor containing code instructions of a computer program for executing the steps of the method of transforming a digital signal according to claim 1.

31. An information storage means which can be read by a computer or a microprocessor containing code instructions of a computer program for executing the steps of the method of transforming a digital signal according to claim 10.

15 32. A partially or totally removable information storage means which is readable by a computer or a microprocessor containing code instructions of a computer program for executing the steps of the method of transforming a digital signal according to claim 1.

20 33. A partially or totally removable information storage means which is readable by a computer or a microprocessor containing code instructions of a computer program for executing the steps of the method of transforming a digital signal according to claim 10.

25 34. A computer program which can be loaded into a programmable apparatus, wherein it contains sequences of instructions or portions of software code for implementing the steps of the method of transforming a digital signal according to claim 1, when this computer program is loaded and executed by the programmable apparatus.

30 35. A computer program which can be loaded into a programmable apparatus, wherein it contains sequences of instructions or portions of software code for implementing the steps of the method of transforming a digital signal according to claim 10, when this computer program is loaded and executed by the programmable apparatus.